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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/780,681

02/08/2001

Thomas A. Kean

19546-020200US

8254

7590

08/10/2006

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EXAMINER

SON, LINH L D

ART UNIT

PAPER NUMBER

2135

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/780,681	Applicant(s) KEAN, THOMAS A.	
	Examiner Linh LD Son	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-25,28-41 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) 1,4-21,25 and 28-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-24 and 48-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/30/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responding to the Election received on 05/22/06.
2. Claims 1, 4-25, 28-41, and 48-50 are pending.
3. Claims 22-24, and 48-50 are elected without traverse.
4. Claims 1, 4-21, 25, 28-41 are non-elected claims and thus, withdrawn from consideration.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 22-24 and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wentker et al, US/6481632, hereinafter "Wentker", in view of Johnson et al, US/5727061, hereinafter "Johnson".

7. As per claims 22 and 48:

Wentker discloses "A method comprising: storing a first secret key on an FPGA chip" in (Col 4:64 to Col 5:7, Col 24:45-50, Col 15:65-67); "causing the FPGA chip to calculate a message authentication code (MAC) (DAP "data authentication pattern) corresponding to a user design" in (Col 19: 15-26, Col 15:60-65, Col 15:30-50, Col 16:60-67); and "storing the message authentication code with bitstream information in a nonvolatile memory" in (Col 20:55 to Col 21:15).

Wentker discloses a means to calculate the MAC to authenticate the received application or configuration and storing the MAC with the configuration in the non-volatile memory.

However, Wentker does not specifically disclose of storing the MAC, which was calculated in the limitation above.

Nevertheless, Johnson discloses a method of calculating a master hash value of a received key to authenticate the true value of the key every time using it in (Col 10:55 to Col 11:5).

Therefore, it would have been obvious at the time the invention was made for one having ordinary skill in the art to modify Wentker's invention to incorporate Johnson's teaching of calculating the hash for verification and storing the hash in the nonvolatile memory.

8. As per claims 23 and 49:

Wentker discloses "The method of claim 22 and 48 further comprising: storing copyright messages with the bitstream information; detecting unauthorized alterations to the bitstream using the message authentication code; and preventing bitstreams which have been altered from being used to configure an FPGA" in (Col 21:25-37).

9. As per claims 24 and 50:

Wentker discloses " The method of claims 22 and 48 further comprising: recording the message authentication code along with corresponding identification information for a product containing the FPGA; and examining the message authentication code stored in the nonvolatile memory of a product containing a pirated FPGA design, which enable determining the identity of the customer to whom the pirated FPGA was originally supplied using a record of MACs and corresponding product identification" in (Col 20:60 to Col 21:15, Col 21:24-38).

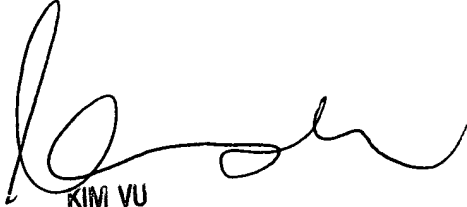
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh LD Son whose telephone number is 571-272-3856. The examiner can normally be reached on 9-6 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh LD Son
Examiner
Art Unit 2135



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100